

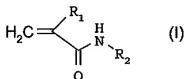
AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A pharmaceutical composition having an anti-tumor effect comprising a pharmaceutically acceptable carrier or excipient and, as active ingredient,

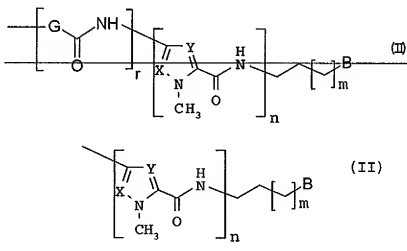
- ~~an acryloyl distamycin derivative~~ a compound of formula (I):



wherein:

R₁ is a bromine or chlorine atom;

R₂ is a group of formula (II)



wherein

m is ~~an integer from 0 to 2~~ 0 or 1;

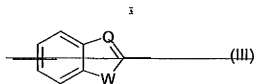
n is ~~an integer from 2 to 5~~ 3 or 4;

r is ~~0 or 1~~;

X and Y are, the same or different and independently for each heterocyclic ring, a nitrogen atom or a CH group;

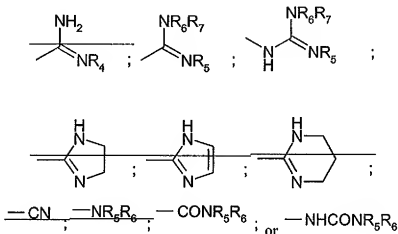
G is ~~phenylene, a 5 or 6 membered saturated or unsaturated heterocyclic ring with from 1 to~~

3 heteroatoms selected among N, O or S, or it is a group of formula (III) below:



wherein Q is a nitrogen atom or a CH group and W is an oxygen or sulfur atom or it is a group NR₃ wherein R₃ is hydrogen or C₁-C₄ alkyl;

B is selected from the group consisting of



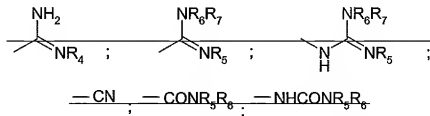
wherein R₄ is cyano, amino, hydroxy or C₁-C₄ alkoxy; R₅, R₆ and R₇, the same or different, are hydrogen or C₁-C₄ alkyl; or a pharmaceutically acceptable salt thereof; and

a protein kinase inhibitor; wherein said pharmaceutical composition has an antitumoral effect; and wherein said protein kinase inhibitor is selected from the group consisting of STI571 (Benzamide, 4-[(4-methyl-1-piperazinyl)methyl]-N-[4-methyl-3-[[4-(3-pyridinyl)-2-pyrimidinyl]amino]phenyl]-)-[.]) and OSI-774 (4-Quinazolinamine, N-(3-ethynylphenyl)-6, 7-bis(2-methoxyethoxy)-), PKI-166 (Phenol, 4-[4-[[[(1R)-1-phenylethyl]amino]-7H-pyrrolo[2,3-d]pyrimidin-6-yl]-], EKB-569 (2-Butenamide, N-[4-[(3-chloro-4-fluorophenyl)amino]-3-cyano-7-ethoxy-6-quinolinyl]-4-(dimethylamino)-(2H)-), GW572016 (4-Quinazolinamine, N-[3-chloro-4-[(3-fluorophenyl)methoxyl]phenyl]-6-[5-[[[2-(methylsulfonyl)ethyl]amino]methyl]-2-furanyl]-), CEP-2563 (β-Alanine, L-lysyl-[(9S,10S,12R)-2,3,9,10,11,12-hexahydro-10-methoxy-9-methyl-1-oxo-9,12-epoxy-1H-diindolo[1,2,3-fg:3',2',1'-kl]pyrrolo[3,4-l][1,6]benzodiazocin-10-yl]methyl ester, hydrochloride (1:2)), UCN-01 (9,13-Epoxy-1H,9H-diindolo[1,2,3-gh:3',2',1'-lm]pyrrolo[3,4-j][1,7]benzodiazonin-1-one, 2,3,10,11,12,13-hexahydro-3-hydroxy-10-methoxy-

9-methyl-11-(methylamino)-(3R,9S,10R,11R,13R)-, [[G]]CGP 41251(Benzamide, N-[(9S,10R,11R,13R)-2,3,10,11,12,13-hexahydro-10-methoxy-9-methyl-1-oxo-9,13-epoxy-1H,9H-diindolo[1,2,3-gh:3',2',1'-lm]pyrrolo[3,4-j][1,7]benzodiazonin-11-yl]-N-methyl-), Safingol(1,3-Octadecanediol, 2-amino-, (2S, 3S)-), Perifosine(Piperidinium, 4-[[hydroxy(octadecyloxy)phosphinyl]oxy]-1,1-dimethyl-, inner salt), SU-5416(2H-indol-2-one, 3-[(3,5-dimethyl-1H-pyrrol-2-yl)methylene]-1,3-dihydro-), CGP-79787(1-Phthalazinamine, N-(4-chlorophenyl)-4-(4-pyridinylmethyl)-), ZD-6474(4-Quinazolinamine, N-(4-bromo-2-fluorophenyl)-6-methoxyl-7-[(1-methyl-4-piperidinyl)methoxyl]-), SU-11248(Butanedioic acid, 2-hydroxy-, (2S)-, compd. with N-[2-(diethylamino)ethyl]-5-[(Z)-(5-fluoror-1,2-dihydro-2-oxo-3H-indol-3-ylidene)methyl]-2,4-dimethyl-1H-pyrrole-3-carboxamide (1:1)), and Flavopiridol(4H-1-Benzopyran-4-one, 2-(2-chlorophenyl)-5,7-dihydroxy-8-[(3S,4R)-3-hydroxy-1-methyl-4-piperidinyl]-); and the tumor to which the pharmaceutical composition has an anti-tumor effect is breast, lung, ovary, lung, colon, kidney, stomach, pancreas, liver, melanoma, leukemia and brain tumor where the antitumoral effect of said pharmaceutical composition is enhanced relative to the additive antitumoral effect of the acryloyl distamycin derivative and the protein kinase inhibitor.

2.-4. (Cancelled)

5. (Currently Amended) The pharmaceutical composition according to claim 1 comprising an acryloyl distamycin derivative of formula (I) wherein R₁ and R₂ are as defined in claim 1, ϵ is 0; m is 0 or 1, n is 4, and X and Y are both CH groups and B is selected from:



wherein R₄ is cyano or hydroxy and R₅, R₆ and R₇, the same or different, are hydrogen or C₁-C₄ alkyl.

6. (Currently Amended) The pharmaceutical composition according to claim 5 comprising an acryloyl distamycin derivative of formula (I) wherein R₁ is bromine, R₂ is a group of formula (II) wherein r and m [[are]] is 0, n is 4, X and Y are CH, B is a group of formula



wherein R₅, R₆ and R₇ are hydrogen atoms, optionally in the form of a pharmaceutically acceptable salt.

7. (Previously Presented) The pharmaceutical composition according to claim 1 comprising an acryloyl distamycin derivative, optionally in the form of a pharmaceutically acceptable salt, selected from the group consisting of:

N-(5-[[{(5-[[{(2-[[amino(imino)methyl]amino}ethyl)amino]carbonyl]-1-methyl-1H-pyrrol-3-yl)amino]carbonyl]-1-methyl-1H-pyrrol-3-yl)amino]carbonyl]-1-methyl-1H-pyrrol-3-yl)-4-[(2-bromoacryloyl)amino]-1-methyl-1H-pyrrole-2-carboxamide hydrochloride;

N-(5-[[{(5-[[{(2-[[amino(imino)methyl]amino}propyl)amino]carbonyl]-1-methyl-1H-pyrrol-3-yl)amino]carbonyl]-1-methyl-1H-pyrrol-3-yl)amino]carbonyl]-1-methyl-1H-pyrrol-3-yl)-4-[(2-bromoacryloyl)amino]-1-methyl-1H-pyrrole-2-carboxamide hydrochloride;

N-(5-[[{(5-[[{(3-amino-3-iminopropyl)amino]carbonyl]-1-methyl-1H-pyrrol-3-yl)amino]carbonyl]-1-methyl-1H-pyrrol-3-yl)amino]carbonyl]-1-methyl-1H-pyrrol-3-yl)-4-[(2-bromoacryloyl)amino]-1-methyl-1H-pyrrole-2-carboxamide hydrochloride;

N-(5-[[{(5-[[{(3-amino-3-iminopropyl)amino]carbonyl]-1-methyl-1H-pyrrol-3-yl)amino]carbonyl]-1-methyl-1H-pyrrol-3-yl)amino]carbonyl]-1-methyl-1H-pyrrol-3-yl)-4-[(2-bromoacryloyl)amino]-1-methyl-1H-imidazole-2-carboxamide hydrochloride;

N-(5-[[{(5-[[{(3-amino-3-iminopropyl)amino]carbonyl]-1-methyl-1H-pyrrol-3-yl)amino]carbonyl]-1-methyl-1H-pyrrol-3-yl)amino]carbonyl]-1-methyl-1H-pyrrol-3-yl)-3-[(2-bromoacryloyl)amino]-1-methyl-1H-pyrazole-5-carboxamide hydrochloride;

N-(5-[[{(5-[[{(3-amino-3-oxopropyl)amino]carbonyl]-1-methyl-1H-pyrrol-3-yl)amino]carbonyl]-1-methyl-1H-pyrrol-3-yl)amino]carbonyl]-1-methyl-1H-pyrrol-3-yl)-3-[(2-bromoacryloyl)amino]-1-methyl-1H-pyrazole-5-carboxamide;

N-(5-{{(5-{{(2-{{(amino(imino)methyl)amino}ethyl)amino}carbonyl)-1-methyl-1H-pyrrol-3-yl)amino}carbonyl)-1-methyl-1H-pyrrol-3-yl)amino}carbonyl)-1-methyl-1H-pyrrol-3-yl)-4-[(2-chloroacryloyl)amino]-1-methyl-1H-pyrrole-2-carboxamide hydrochloride;

N-(5-{{(5-{{(3-{{(amino(imino)methyl)amino}propyl)amino}carbonyl)-1-methyl-1H-pyrrol-3-yl)amino}carbonyl)-1-methyl-1H-pyrrol-3-yl)-4-[(2-bromoacryloyl)amino]-1-methyl-1H-pyrrole-2-carboxamide hydrochloride;

N-(5-{{(5-{{(3-amino-3-iminopropyl)amino}carbonyl)-1-methyl-1H-pyrrol-3-yl)amino}carbonyl)-1-methyl-1H-pyrrol-3-yl)-4-[(2-bromoacryloyl)amino]-1-methyl-1H-pyrrole-2-carboxamide hydrochloride; and

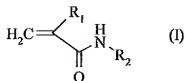
N-{5-{{(5-{{(3-{{(aminocarbonyl)amino}propyl)amino}carbonyl)-1-methyl-1H-pyrrol-3-yl)amino}carbonyl)-1-methyl-1H-pyrrol-3-yl)amino}carbonyl)-1-methyl-1H-pyrrol-3-yl)-4-[(2-bromoacryloyl)amino]-1-methyl-1H-pyrrole-2-carboxamide.

8. (Currently Amended) A pharmaceutical composition comprising a pharmaceutically acceptable carrier or excipient and, as active ingredient,

- N-(5-{{(5-{{(2-{{(amino(imino)methyl)amino}ethyl)amino}carbonyl)-1-methyl-1H-pyrrol-3-yl)amino}carbonyl)-1-methyl-1H-pyrrol-3-yl)amino}carbonyl)-1-methyl-1H-pyrrol-3-yl)-4-[(2-bromoacryloyl)amino]-1-methyl-1H-pyrrole-2-carboxamide hydrochloride (Bristollicin); and

- a protein kinase inhibitor selected from the group consisting of STI571 (Benzamide, 4-[[4-methyl-1-piperazinyl)methyl]-N-[4-methyl-3-[[4-(3-pyridinyl)-2-pyrimidinyl]amino]phenyl]-), and OSI-774(4-Quinazolinamine, N-(3-ethynylphenyl)-6, 7-bis(2-methoxyethoxy)-), and SU-5416(2H-indol-2-one, 3-[(3,5-dimethyl-1H-pyrrol-2-yl)methylene]-1, 3-dihydro-); wherein the pharmaceutical composition has an antitumoral effect which is enhanced relative to the additive antitumoral effect of the Bristollicin and the protein kinase inhibitor.

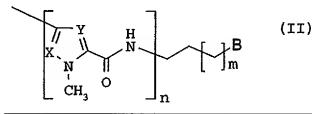
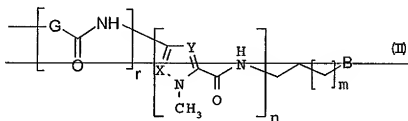
9. (Currently Amended) A product comprising an acryloyl distamyein derivative a compound of formula (I):



wherein:

R₁ is a bromine or chlorine atom;

R₂ is a group of formula (II)



wherein

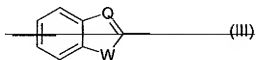
m is an integer from 0 to 20 or 1;

n is an integer from 2 to 5;

r is 0 or 1;

X and Y are, the same or different and independently for each heterocyclic ring, a nitrogen atom or a CH group;

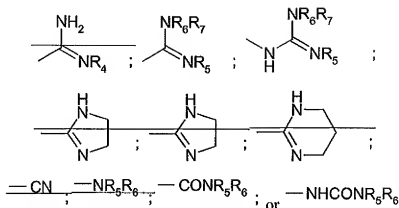
G is phenylene, a 5 or 6 membered saturated or unsaturated heterocyclic ring with from 1 to 3 heteroatoms selected among N, O or S, or it is a group of formula (III) below:



wherein Q is a nitrogen atom or a CH group and W is an oxygen or sulfur atom or it is a group NR₃

wherein R_3 is hydrogen or C_1 - C_4 alkyl;

B is selected from the group consisting of



wherein R_4 is cyano, amino, hydroxy or C_1 - C_4 alkoxy; R_5 , R_6 and R_7 , the same or different, are hydrogen or C_1 - C_4 alkyl;

or a pharmaceutically acceptable salt thereof; and

a protein kinase inhibitor, as a preparation where the acryloyl distamycin derivative may be administered simultaneously with the protein kinase inhibitor or, alternatively, both compounds may be administered sequentially in either order in the treatment of tumors; and wherein said protein kinase inhibitor is selected from the group consisting of ST1571 (Benzamide, 4-[(4-methyl-1-piperazinyl)methyl]-N-[4-methyl-3-[[4-(3-pyridinyl)-2-pyrimidinyl]amino]phenyl]-), and OSI-774 (4-Quinazolinamine, N-(3-ethynylphenyl)-6, 7-bis(2-methoxyethoxy)-), PKI-166 (Phenol, 4-[4-[(1R)-1-phenylethyl]amino]-7H-pyrrolo[2,3-d]pyrimidin-6-yl]-), EKB-569 (2-Butenamide, N-[4-[(3-chloro-4-fluorophenyl)amino]-3-cyano-7-ethoxy-6-quinolinyl]-4-(dimethylamino)-, (2E)-), GW572016 (4-Quinazolinamine, N-[3-chloro-4-[(3-fluorophenyl)methoxyl]phenyl]-6-[5-[[[2-(methylsulfonyl)ethyl]amino]methyl]-2-furanyl]-), CEP 2563 (β -Alanine, L-Isoyl, [(9S,10S,12R)-2,3,9,10,11,12-hexahydro-10-methoxy-9-methyl-1-oxo-9,12-epoxy-1H-diindolo[1,2,3-fg:3',2',1'-kl]pyrrolo[3,4-h][1,6]benzodiazocine-10-yl]methyl ester, hydrochloride (1:2)), UCN-01 (9,13-Epoxy-1H,9H-diindolo[1,2,3-gh:3',2',1'-lm]pyrrolo[3,4-j][1,7]benzodiazonin-1-one, 2,3,10,11,12,13-hexahydro-3-hydroxy-10-methoxy-9-methyl-11-(methylamino)-, (3R,9S,10R,11R,13R)-), [[G]] CGP 41251 (Benzamide, N-[(9S,10R,11R,13R)-2,3,10,11,12,13-hexahydro-10-methoxy-9-methyl-1-oxo-9,13-epoxy-1H,9H-diindolo[1,2,3-gh:3',2',1'-lm]pyrrolo[3,4-j][1,7]benzodiazonin-11-yl]-N-methyl-), Safingol (1,3-

Octadecanediol, 2-amino-, (2S, 3S)-, Perifosine (Piperidinium, 4-[[hydroxy(octadecyloxy)phosphinyl]oxy]-1,1-dimethyl-, inner salt), SU-5416 (2H-indol-2-one, 3-[(3,5-dimethyl-1H-pyrrol-2-yl)methylene]-1,3-dihydro-), CGP-79787 (1-Phthalazinamine, N-(4-chlorophenyl)-4-(4-pyridinylmethyl)-), ZD-6474 (4-Quinazolinamine, N-(4-bromo-2-fluorophenyl)-6-methoxy-1-7-[(1-methyl-4-piperidinyl)methoxy]-), SU-11248 (Butanedioic acid, 2-hydroxy-, (2S)-, compd. with N-[2-(diethylamino)ethyl]-5-[(Z)-(5-fluoror-1,2-dihydro-2-oxo-3H-indol-3-ylidene)methyl]-2,4-dimethyl-1H-pyrrole-3-carboxamide (1:1)), and Flavopiridol (4H-1-Benzopyran-4-one, 2-(2-chlorophenyl)-5,7-dihydroxy-8-[(3S,4R)-3-hydroxy-1-methyl-4-piperidinyl]-); wherein the product has an antitumoral effect on breast, ovary, lung, colon, kidney, stomach, pancreas, liver, melanoma, leukemia and brain tumor, which effect is enhanced relative to the additive antitumoral effect of the acryloyl distamycin derivative and the protein kinase inhibitor.

10.-12. (Cancelled)

13. (Currently Amended) The product according to claim 9 comprising an acryloyl distamycin derivative of formula (I) wherein R₁ is bromine, R₂ is a group of formula (II) wherein r and m [[are]] is 0, n is 4, X and Y are CH₃, B is a group of formula



wherein R₅, R₆ and R₇ are hydrogen, optionally in the form of a pharmaceutically acceptable salt.

14. (Previously Presented) The product according to claim 9 wherein the acryloyl distamycin derivative is selected from the group as defined in claim 7.

15. (Currently Amended) A product comprising the acryloyl distamycin derivative N-[5-[[[5-[[[2-(aminoiminomethyl)amino]ethyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[[4-[(2-bromo-1-oxo-2-propenyl)amino]-1-methyl-1H-pyrrol-2-yl][carbonyl]amino]-1-methyl-1H-pyrrole-2-carboxamide hydrochloride (Bristollicin), and a protein kinase inhibitor selected from the group consisting of

STI571(Benzamide, 4-[(4-methyl-1-piperazinyl)methyl]-N-[4-methyl-3-[[4-(3-pyridinyl)-2-pyrimidinyl]amino]phenyl]-), OSI-774(4-Quinazolinamine, N-(3-ethynylphenyl)-6, 7-bis(2-methoxyethoxy)-) and SU 5416(2H-indol-2-one, 3-[(3,5-dimethyl-1H-pyrrol-2-yl)methylene]-1, 3-dihydro-); as a combined preparation for simultaneous, separate or sequential use in the treatment of tumors, wherein said tumors are breast, ovary, lung, colon, kidney, stomach, pancreas, liver, melanoma, leukemia and brain tumors.

16.-23. (Cancelled)

24. (Currently Amended) A method of treating a tumor selected from breast, ovary, lung, colon, kidney, stomach, pancreas or liver, cancer, melanoma, leukemia and brain tumor in a mammal, suffering from a neoplastic disease state; which method comprises administering to said mammal the acryloyl distamycin derivative of formula (I), as defined in claim 1, a and a protein kinase inhibitor selected from ST I571 and OSI-774, in amounts effective to produce an antitumoral effect which is enhanced relative to the additive antitumoral effect of the acryloyl distamycin derivative and the protein kinase inhibitor.

25. (Previously Presented) The method according to claim 24 wherein the acryloyl distamycin derivative is N-[5-[[[5-[[[2-[(aminoiminomethyl)amino]ethyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[[4-[(2-bromo-1-oxo-2-propenyl)amino]-1-methyl-1H-pyrrol-2-yl[carbonyl]amino]-1-methyl-1H-pyrrol-2-carboxamide hydrochloride (Bristollicin), and the protein kinase inhibitor is selected from the group consisting of STI571(Benzamide, 4-[(4-methyl-1-piperazinyl)methyl]-N-[4-methyl-3-[[4-(3-pyridinyl)-2-pyrimidinyl]amino]phenyl]-), OSI-774(4-Quinazolinamine, N-(3-ethynylphenyl)-6, 7-bis(2-methoxyethoxy)-) and SU 5416(2H-indol-2-one, 3-[(3,5-dimethyl-1H-pyrrol-2-yl)methylene]-1, 3-dihydro-).

26. (Currently Amended) The method for lowering the side effects caused by antineoplastic therapy with an antineoplastic agent, in a mammal in need thereof, the method comprising administering to said mammal a combined preparation comprising a protein kinase inhibitor and an acryloyl distamycin derivative a compound of formula (I), as defined in claim 1, in amounts effective to produce an antitumoral effect on tumors selected from breast, ovary,

lung, colon, kidney, stomach, pancreas, liver, melanoma, leukemia and brain tumors which is enhanced relative to the additive antitumoral effect of the acryloyl distamycin derivative and the protein kinase inhibitor.

27. (Currently Amended) The method according to claim 26 wherein the ~~acryloyl distamycin derivative~~ compound of formula 1 is N-[5-[[[2-[(aminoiminomethyl)amino]ethyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-4-[[[4-[(2-bromo-1-oxo-2-propenyl)amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrole-2-carboxamide hydrochloride (Brostallicin), and the protein kinase inhibitor is selected from the group consisting of STI571 (Benzamide, 4-[(4-methyl-1-piperazinyl)methyl]-N-[4-methyl-3-[[4-(3-pyridinyl)-2-pyrimidinyl]amino]phenyl]-), OSI-774 (4-Quinazolinamine, N-(3-ethynylphenyl)-6, 7-bis(2-methoxyethoxy)-) and SU 5416 (2H-indol-2-one, 3-[(3,5-dimethyl-1H-pyrrol-2-yl)methylene]-1, 3-dihydro-).

28.-30. (Cancelled)

31. (Previously Presented) The method of treating a mammal according to Claim 24 wherein the mammal is human.

32. (Previously Presented) The method for lowering the side effects according to Claim 26 wherein the mammal is human.

33.-34. (Cancelled)